Increasing landscape appreciation through the landscape services approach. A case study from Switzerland

Keller, Roger ; Clivaz, Mélanie ; Reynard, Emmanuel ; Backhaus, Norman

Abstract: Switzerland uses various instruments to protect and maintain its natural resources and the environment. The federal inventory "Landscapes and Natural Monuments of National Importance" documents 19 percent of Switzerland's land surface. It aims for the permanent preservation or greatest possible protection of these environments. This inventory's records of impact (knowledge by the population) and acceptance (in particular by local authorities) would benefit from improvements. Based on expert interviews and observations in five pilot regions, this study highlights the obstacles and possible solutions to the goal of increasing appreciation of landscapes of national importance. The study develops recommendations for action for different stakeholders (the federal state, cantons, local authorities, NGOs and associations, economic actors) in three areas: (i) communication, information, and dialogue, (ii) cooperation between stakeholders, and (iii) support from federal and cantonal agencies.

DOI: https://doi.org/10.3390/su11205826

sustainability

MDPI

Article

Increasing Landscape Appreciation through the Landscape Services Approach. A Case Study from Switzerland

Roger Keller [1,*], Mélanie Clivaz [2,3], Emmanuel Reynard [2,3] and Norman Backhaus [1,4]

1 Department of Geography, University of Zurich, 8057 Zurich, Switzerland; norman.backhaus@geo.uzh.ch
2 Interdisciplinary Centre for Mountain Research, University of Lausanne, 1950 Sion, Switzerland; melanie.clivaz@unil.ch (M.C.); emmanuel.reynard@unil.ch (E.R.)
3 Institute of Geography and Sustainability, University of Lausanne, 1015 Lausanne, Switzerland
4 University Priority Programme Global Change and Biodiversity, University of Zurich, 8057 Zurich, Switzerland
* Correspondence: roger.keller@geo.uzh.ch; Tel.: +41-44-635-5186

Received: 9 September 2019; Accepted: 18 October 2019; Published: 21 October 2019

Abstract: Switzerland uses various instruments to protect and maintain its natural resources and the environment. The federal inventory "Landscapes and Natural Monuments of National Importance" documents 19 percent of Switzerland's land surface. It aims for the permanent preservation or greatest possible protection of these environments. This inventory's records of impact (knowledge by the population) and acceptance (in particular by local authorities) would benefit from improvements. Based on expert interviews and observations in five pilot regions, this study highlights the obstacles and possible solutions to the goal of increasing appreciation of landscapes of national importance. The study develops recommendations for action for different stakeholders (the federal state, cantons, local authorities, NGOs and associations, economic actors) in three areas: (i) communication, information, and dialogue, (ii) cooperation between stakeholders, and (iii) support from federal and cantonal agencies.

Keywords: landscape services; social-ecological system; transdisciplinarity; landscapes of national importance; Switzerland

1. Introduction

Landscapes are part of the cultural identity and diversity of regions. In Europe they have been shaped both by natural processes and centuries of cultural appropriation by rural and urban societies, which have created a variety of high-quality landscapes [1–3]. Thus, landscapes can be seen as the result of people's interactions with their environment [4,5]. For the last two centuries, industrialization, infrastructure development for communication, natural resource exploitation and tourism, as well as urbanization and urban sprawling, have tended to impact landscapes [6]. These developments increase use conflicts [7] and reduce landscape quality and differentiation, especially at the rural-urban interface [8]. This is why both at the national and international level (e.g., in the European Landscape Convention of 2000 [9]) specific policies aimed at landscape protection and planning have been adopted.

Switzerland implemented the federal inventory "Landscapes and Natural Monuments of National Importance (BLN)" in 1977, which includes some of the most valuable landscapes in Switzerland [10]. This top-down instrument is aimed to preserve unique or typical landscapes to the greatest possible level of protection possible [11]. However, according to an evaluation by the parliamentary administrative control unit [12], the targets of this federal inventory are far from achieved. One reason is because the federal political system shares responsibilities with different government levels for protecting

landscapes, thus creating unclear liabilities. Another reason is that vague protection goals lead to uncertainties in how to deal with these landscapes of national importance.

In 2017, the BLN ordinance was updated [13] and protection goals for each site were established. The Federal Office for the Environment (FOEN) has taken this opportunity to provide various tools to support the 26 cantons (states) and over 2000 communes in Switzerland to strengthen appreciation for particularly valuable landscapes. One of these tools is aimed to engage with the concept of landscape services (LS).

The concept of LS seeks to highlight the services provided by landscapes to human well-being and thus increase appreciation for specific landscapes. LS is derived from the ecosystem services (ES) approach but focuses on policies of landscape development [14–16]. The ES approach was initially designed to focus on ecological interactions. The Millennium Ecosystem Assessment [17] already linked ES to human well-being. The more recent notion of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) more strongly emphasizes the ES role in a social–ecological system as "nature's contributions to people" [18]. We do not aim to investigate current controversies about the development or changes of key terms and concepts within the global biodiversity and ES community here [19,20]. Instead, we work with a LS approach because 'landscape' is a broader term than 'ecosystem', which accommodates multiple disciplinary perspectives from natural and social scientists as well as experts outside academia [16].

While protecting landscapes is an important step for preserving nature services for humans, it is not sufficient. The maintenance and care for such landscapes remain secondary to those landscapes' potentials and needs, and depend on institutional settings. Hence, since the LS approach regards protected areas as landscapes that provide services, we believe it better enables us to reach decision makers, other stakeholders, and ultimately the wider public, and to contribute to better sustainable development at the regional level.

The main aim of this study is to assess whether using a landscape services approach better protects and makes use of landscapes. The following research questions formed the basis of this study:

- How can landscape services be used to describe and analyze landscape appreciation in specific areas?
- How can landscape services be used to develop recommendations for landscape stakeholders?

2. Materials and Methods

2.1. Landscape Services

Landscape services describe the benefits that landscapes provide to different stakeholders. LS have "direct economic, social and mental benefits for individuals and the society" [16]. In 2017, a transdisciplinary process with stakeholders from government agencies, trade associations, research institutes, and civil society was initiated in Switzerland to discuss possibilities of policy integration of LS. Best practice examples were debated, and ways to better consider LS within existing policy instruments were discussed [16]. As a result, four different LS were distinguised, which also have been used to describe the pilot regions in the current study: aesthetic pleasure, identification and sense of place, recreation and health, and attractiveness of the location. (See Table 1 for a short description and [21] for in-depth examples and literature.) Biodiversity and geodiversity are of utmost importance for LS and can be seen as prerequisites for providing LS.

Table 1. Landscape services used to describe the pilot regions.

Landscape Service	Description
Aesthetic pleasure	Aesthetic perceptions activated by all senses Attractive scenery, well-being and landscape experience
Identification and sense of place	Feelings of belonging and attachment Landscape as a place shaped by history and linked with identity
Recreation and health	Increased physical and mental well-being Promotion of health through physical activity in the countryside
Attractiveness of the location	Attractive landscapes preferred to residential and holiday areas High quality of life as an essential location factor for companies

A literature review on how information on LS influences the collaboration in landscape governance suggests that knowing about the mutual benefits of landscapes enhances collaboration between different stakeholders [22]. This idea of strengthening the collaboration was one of the main motivations for FOEN to financially support this research project. Additionally, the LS approach is also an analytical tool, which allows for a means of formalizing the contributions of landscape to society, an approach that helps stakeholders to express their connections to landscapes and how they use services provided by the landscapes. By applying the LS concept to specific pilot regions, the study delivers results to the research field of sustainable landscape management [23].

2.2. Study Sites

Five different pilot regions that are part of the BLN were selected (see Figure 1). The five regions contain different landscape attributes (lakes, mountains, forests, moors, etc.) and differ in terms of remoteness or accessibility. Besides being part of the BLN, one region (Lavaux) is also a UNESCO World Heritage Site [24]. Another (Chatzenseen) is an Emerald Network Site [25]. Several others are listed as protected sites in other national or cantonal inventories.

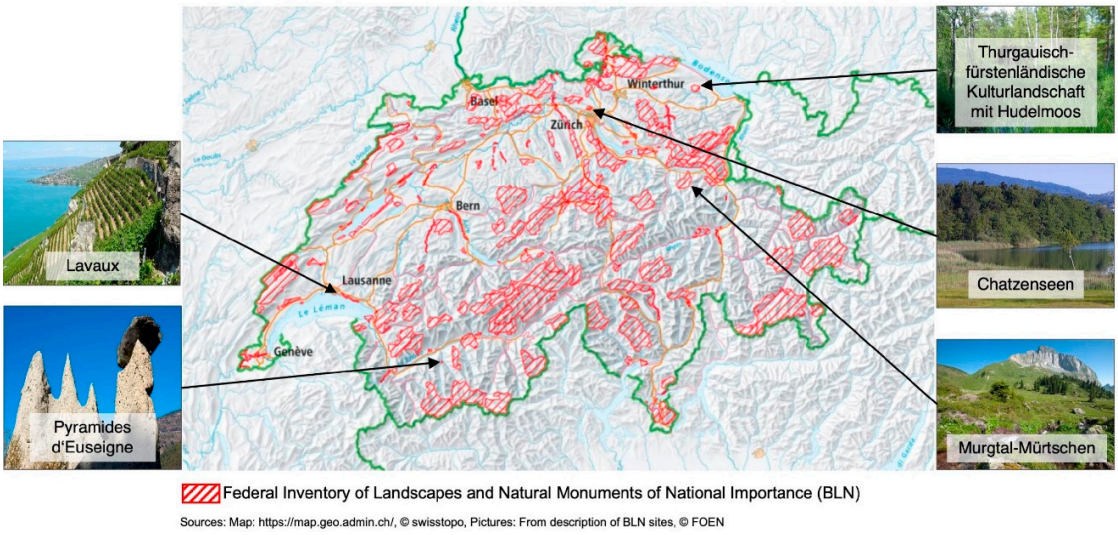

Figure 1. Map of the 162 "Landscapes and Natural Monuments of National Importance (BLN)" sites with the five selected pilot regions.

Lavaux is a terraced vineyard located between the Lausanne and Vevey–Montreux agglomerations on the northern shore of Lake Geneva. The terraced plots (4337 plots in 2015) and the extremely steep slopes (in Dézaley, for example) carved out by the Rhone Glacier are the main characteristics of this vineyard [26]. The vineyard was gradually established from the 11th century on slopes once occupied by forests. The result is a cultural landscape shaped by the work of winemakers. The

natural environments are limited to cliffs, rock outcrops, brush, dry meadows, and some strips of forest. Lavaux has been listed as a United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Heritage site since 2007.

The Pyramides d'Euseigne are located near the village of Euseigne in the Hérens valley in the Canton of Valais. They are formed by about fifteen earth pyramids 10–15 meters-high, some topped by boulders. They were modeled by the regressive erosion in the deposits of the lateral moraines of the Hérens Glacier and Dix Glacier during the late-glacial period. Erosion processes are still active today [27]. The Pyramides d'Euseigne are surrounded by various natural environments: steppe grass, low-lying siliceous Scots pine, riparian alder, and various hardwoods. Until the 1960s, the slope near the pyramids was used for agriculture. Since then, it has been reforested because of agriculture regression. The site is now a tourist attraction.

The "Thurgauisch-Fürstenländische Kulturlandschaft mit Hudelmoos" is a glacial plateau with a slightly undulating topography located near Lake Constance. It consists of two types of landscapes: the cultivated landscape with standard apple and pear orchards, meadows and fields, and the swamps of Hudelmoos and Möösli with forests and ponds. It is a typical landscape of northeastern Switzerland, with agricultural land, hamlets, and isolated farms.

The Chatzenseen, two shallow and interconnected lakes surrounded by wooded moraine hills and a marshy and lacustrine landscape, are located north of the city of Zurich. The region is one of 37 Emerald Network Sites in Switzerland. It is also listed in several inventories at the national, cantonal, and communal levels (i.e., the federal inventory of batrachian reproduction sites, federal inventory of raised bogs and transitional bogs, federal inventory of fens, cantonal ornithological inventory, and cantonal inventory of reptiles). It is an important area for local recreation by the Zurich population.

The Murgtal Valley in the Canton of St-Gallen ends on the shores of the Walensee. The Mürtschen Valley ends with a steep 300 meter-slope into the Murgtal Valley to its west. The upper parts of both valleys open above the forest edge on arena-shaped levels. The Upper Mürtschen Valley is a preserved natural landscape. It can only be reached on foot. This valley has a rich geological and geomorphological heritage and, due to the alternation of several rocky ecosystems, a remarkable richness of plant species. Its waters are not exploited.

2.3. Methodology

An advisory group consisting of various landscape stakeholders from the five pilot regions in this study (Figure 1) contributed their suggestions to the project in two workshops and provided valuable advice on sharpening the research questions. The 16 members of this advisory group also played an important role in the selection of people interviewed.

The methodology consisted of:

- Reviews of existing documents (descriptions of BLN objects, reports, maps)
- Personal observations in the pilot regions (notes, photographs)
- Qualitative interviews with landscape stakeholders in the pilot regions

In a first step, five study sites were identified (see Section 2.2) that differed in terms of location and traits. The analysis of the existing documentation and personal observations in the five pilot regions made it possible to understand the natural and landscape values that justify their national importance and their protection objectives. In a second step, stakeholders who have connections to one or more of the pilot regions were chosen. We thereby used purposeful sampling to look for experts with deeper knowledge about the selected sites. A survey of "the public" was dispensed because the direct access to different landscape experts from public authorities and the civil society made it possible to consider a broad spectrum of opinions. Interviewees were selected from a list of experts from various domains (such as public authorities from economic sectors, such as tourism and agriculture, or from other sectors like nature and landscape protection and culture). The selections were submitted to the advisory group for comments and suggestions. For each study site, interviewees were chosen on the

basis of three criteria: the diversity of domains of expertise, the coverage of a wide range of landscape "producers" and "consumers", and the balance of number of interviews in the different pilot regions. Thus, a total of 27 experts were interviewed (see Table 2).

Table 2. Summary of expert interviews in pilot regions.

Study Site	Number of Interviews	Number of Interviewees	Type of Interview	Domain of Expertise
Lavaux	4	4	Individual, face-to-face	Public authorities Agriculture Tourism
Pyramides d'Euseigne	3	8	Individual, face-to-face (2) Collective, in the field	Public authorities Agriculture Nature and landscape protection Tourism
Thurgauisch-Fürstenländische Kulturlandschaft mit Hudelmoos	7	7	Individual, face-to-face	Public authorities Nature and landscape protection Agriculture
Chatzenseen	4	4	Individual, face-to-face	Public authorities Nature and landscape protection
Murgtal-Mürtschen	4	4	Individual, face-to-face	Public authorities Nature and landscape protection Tourism

The majority of experts were interviewed individually and in person by a research team member. These interviews were conducted with reference to a semi-structured interview guide (the same for all regions studied) that both focused on the topic and gave room for unsolicited answers and opinions, so that the respondents could express themselves freely. Landscape services were not explicitly addressed in the interviews. Experts were asked about their relationship to the region (frequency of visits, knowledge of the region's history, what is appreciated or disturbing). They were also asked to identify the unique elements of the studied landscapes, whether and how the uniqueness of landscapes should be better communicated to the public, and the potential future developments in these regions.

In one pilot region (Pyramides d'Euseigne), a collective interview was conducted in the form of a transect walk [28], i.e., a walk with a group of stakeholders with various profiles, through the landscape. The researchers listened to and observed the discussions by the stakeholders on the visited landscape. All interviews (individual and collective) were recorded, transcribed and categorized deductively. This qualitative approach (without statistical analysis) allowed for a more in-depth analysis than, for instance, a questionnaire would have made possible.

The analysis included a comparison of the five pilot regions and focused in particular on the uniqueness of the region and on conflicts between preservation and development. The analysis was based on the concept of landscape services, which provides a means to formalize the discussion and organize it around people's perceptions. In particular, using this typology was very useful for classifying and categorizing the citations by the interviewees (see the report of the project [29]).

3. Results

In the workshops with the advisory group, four thematic issues were identified (indicated in Sections 3.1–3.4). These thematic issues relate to topics, problems and questions that landscape practitioners encounter in their work. For each issue, the landscape services listed in Table 1 play a role (e.g., aesthetics and identification are important services for uniqueness and typicality, which again relates to attractiveness and recreation). LS are described differently by different stakeholders. However, by asking practitioners about benefits provided by landscapes, their descriptions can be used to find commonalities and differences in perception. Based on this, it is on the one hand possible to bring

together stakeholders with similar goals and start a dialogue on sustainable landscape management, whilst on the other hand, differing or conflicting notions can be addressed and discussed.

3.1. Uniqueness and Typicality

Respondents believe that the specificity of landscapes—whether they are characterized as unique or typical—should be better communicated to the local population. Respondents assume that the population often knows that certain landscapes are protected, but not why they are worthy of protection or what this protection entails.

Quotes from the interviews (all translated either from German or French) are for instance (in parentheses, the reference to the interview number):

> *"There is a lack of awareness for the uniqueness of high-elevation fields [Hochäcker] and standard orchards [Hochstammobstgärten]; especially with the farmers, because they distrust the [financial] contribution they receive [for protecting these fields and orchards]."* (I7)

> *"The sensitization of the population is important: We want to make the locals more aware of the value of the landscape and to make them proud so that they engage in the preservation [of the landscape]."* (I9)

> *"But this needs the will of everyone: the area needs to be respected. I believe much can be done through communication. Namely not by interdictions but through clarification."* (I3)

Raising awareness could help the general public feel more connected and willing to commit to the area and its development. A dialogue should be conducted with local landscape actors: these could be municipal authorities, conservation associations, civil society organizations, or tourism actors. It could be useful to form a joint body with the interested landscape actors in order to strengthen regional identification with protected areas and to develop joint activities (e.g., guided tours, lectures, information panels).

3.2. Preservation and Development

"Preservation" and "development" should not be seen as oppositional categories: the existing protection instruments (like the BLN inventory) make it possible to develop a landscape while preserving its specific character. This is a permanent process of negotiation between all the actors involved in the landscape's use and management.

> *"According to my personal opinion, there are many areas in the canton of Zurich that are more beautiful, no question. However, the Chatzenseen's immediate vicinity to the City of Zurich is speaking for them [is an asset]. The area is easily accessible by public transport."* (I2)

In order to provide landscape services, accessibility to the areas is needed: people must be able to experience the landscape, whether through a walk, a view from a bench, swimming in a lake, or through other activities and experiences. This does not mean, however, that all activities must be possible in all landscapes. Some areas are particularly valuable because of their remoteness and tranquility. Respondents mentioned that if certain uses are restricted to specific areas, consideration should also be given to where those uses can be permitted or perhaps even actively offered.

> *"I was surprised that we have such a beautiful area [Murgtal-Mürtschen]. I was not aware there was such a thing here. On the one side this is a pity, on the other hand maybe not, because as long as it is protected it receives less attention and nature can reign in peace."* (I13)

Landscapes are often linked to personal stories, practices and local conditions: these stories are to be considered and passed on. This means that relevant landscape items need to be preserved. At the same time, new generations or newcomers can (again) identify with landscapes and make other landscape features their own.

"The knowledge about such areas generally becomes lost, you talk about it less often and it is not passed down the generations anymore." (I13)

3.3. Recreation and Tourism

Discussions with the interviewees showed that the aesthetics of the pilot regions make them ideal for recreation. However, the diverse demands of recreational users create different spatial demands. Some people explicitly seek tranquility and need little infrastructure: often a few paths and benches are sufficient. Others want to be active in nature, be it by bike, boat, cross-country skis, or other activities, and require parking spaces or maintained tracks (such as paved roads for racing bikes or improved trails for mountain bikes). Therein lies potential for conflicts between various groups of recreationists.

"The people from Glarus do not share their landscape easily, I have the impression. Therefore, it gets difficult if its uniqueness is emphasized. Politically, people want to further nature-based tourism, but if more people are passing your hunting cabin you don't have so much joy anymore. However, I believe that we cannot preserve anything long-term that we cannot show. [O]therwise, how can we transport [landscapes'] values?" (I14)

A general challenge is the pressure on attractive green spaces. Some interviewees pointed out a need for "recreation planning": planning authorities should define areas where active recreation can be encouraged (e.g., by providing appropriate infrastructure) and others where the need for tranquility can be met. This calls for a proactive approach towards recreation in green spaces. This also requires creativity on the part of various specialist departments: for example, a wildlife park could be created in a forest area.

"There are two types of recreationists: Some want peace and quiet and others want something to experience and 'consume' the landscape. We recommend targeted infrastructure such as entry points for inflatable boats and also areas where the tranquility of the landscape is preserved." (I5)

"For some people this place is a trash dump. Moreover, the topic 'defecation' is a slow burner. At events organized by the municipalities mobile toilets are provided; apart from this there are no toilets." (I8)

Changes are taking place in the tourism sector, in some regions towards considering more experiences linked to local tradition, landscape, and heritage. Tourist organizations want to make local identities and landscapes more accessible and connect them with each other in order to create authentic tourist offers close to nature and culture.

3.4. Agriculture

Agricultural interests differ depending on the area and the interviewees. It is necessary to discuss the desired and possible agricultural use at the local level. The specific circumstances in the region must be taken into account.

The conflict between the intensive agricultural production methods and measures to protect natural and cultural heritage is a central challenge. The ongoing development of the areas should be based on development strategies that are collaboratively formulated, and that include the personal responsibility of the local stakeholders concerned.

"With the topics of [federal] financial support for the improvement of landscape quality [Landschaftsqualitätsbeiträge] and biodiversity [Biodiversitätförderflächen], I don't know what all this has brought during these years. With landscape policy the constant changes and the many programmes and labels are confusing." (I10)

"For me this [federal programmes and support] is not an issue and I do not feel curtailed." (I10)

> *"Now a relatively young farmer is president [of the regional farmers' association]. With him we were able to agree on the use of fens [Flachmoore] without problems. We just pay [for their maintenance] and it works."* (I14)

The quotes also show that landscape management and preservation depends on how farmers and authorities can work together and what personal relations can be established. Moreover, they show that there is no unified opinion regarding landscape policy, be it between different stakeholder groups or within the groups (i.e., farmers). However, conflicts are generally discussed and (government) regulations are generally accepted, if by some only grudgingly.

4. Discussion: Recommendations for Stakeholders

At first glance, the results of this study seem comparable to similar landscape management projects, supporting the idea that landscape cannot be addressed only by a specific landscape-oriented policy; rather, its management must take several sectoral policies (i.e., forest, water, agriculture—see [30]) into account.

However, the concept of landscape services can be used at the operational level as a coordination tool between stakeholders in charge of the management and planning of landscapes. By naming and describing the relevant LS (see Table 1) it is possible to establish a shared understanding of the relevant issues and the ways that different stakeholders can relate to them. Talking about "identification and sense of place" or "recreation and health" in specific areas can reveal more concrete needs than abstract discussions about goals of visitor guidance. For example within one of the study sites, the research team was able to connect different stakeholders based on their similar requirements to the landscape. They have now formed a project team that develops different awareness-raising projects, and a completely new visitor guidance for the study site.

On a more analytical level, using the LS approach can help find co-operative solutions in cases where conflicts arise between resource-based and non-utility conceptions of landscapes, as discussed by Gerber and Knoepfel [30]. In particular, the LS "aesthetic pleasure" and "identification and sense of place" are clearly associated with non-utility conceptions of landscape. These two LS could bridge more resource-oriented conceptions represented by the "recreation and health" and "attractiveness of location" LS. The LS concept and typology [16] have therefore demonstrated to be useful analytical tools for landscape research.

We furthermore consider that LS are powerful communication tools for improving awareness of the qualities of the landscape amongst the public, the visitors and the inhabitants. By formalizing the types of relationships (cf. [31–33]) these stakeholders have with the landscape—whether a relation of exploitation of resources, aesthetic appreciation, or symbolic identification—LS can increase people's awareness of the importance of landscapes and ultimately their willingness to protect them and/or develop them sustainably.

How can landscape services help to increase landscape appreciation? An important factor is the interdisciplinary and cross-sectoral engagement with landscape services. LS provides three types of opportunities: (1) Communication, information, and dialogue: to communicate about the special characteristics and services of landscapes, and to encourage the population to engage with landscapes. (2) Cooperation between landscape actors: to constructively handle conflicting areas and options for further development, exchanging views on common objectives. (3) Support from public authorities: to develop suggestions for dealing with LS at strategic and operational levels, develop a set of best practice examples, and (co)finance dialogue processes on landscape services.

Assigning responsibilities within the fields of action outlined above is challenging because there is often a lack of resources and expertise for a proactive approach to LS. It is much more common to react when problems arise, e.g., when the pressure on land use in an area has become too great. For this reason it was decided to support the interested actors from the five pilot regions directly in their work on LS in a next step: Specifically, various smaller pilot projects will be carried out in 2019, in which, for example, school classes will tackle the special landscape characteristics in their residential communities,

or landscape events will be offered to the interested public in partnership with authorities, agricultural organizations, and nature conservation organizations. All these projects will be documented, and the lessons learnt will be prepared and generalized in such a way that best practices can be transposed to other regions.

The research questions examined in this project deal with a highly relevant but narrowly defined subject area by focusing on landscapes of national importance in Switzerland. They thus encompass a specific political and institutional context as well as certain landscape qualities. Consequently, the following questions arise: How can the findings be transferred to other areas, e.g., to non-protected landscapes? What services do densely populated or intensively used landscapes offer, for example?

The application of LS analysis on everyday landscapes should help answer these questions. With our focus on BLN sites, we already established that it does not make much sense to assess every kind of landscape with the same tool. Rather, we found that the specific landscape traits and services that different stakeholders see in a certain landscape should be the starting point from which a landscape service assessment can be developed. This is where the LS approach is helpful: it enables stakeholders to express the benefits and the needs that they see in regards to a specific landscape. Subsequently, a growing collection of best-practice examples can be used to inform the analyses of different kinds of landscapes. We therefore believe that not only special, such as protected, landscapes will receive better appreciation with such an assessment but also every-day landscapes. This, consequently, should lead to a more sustainable development of landscapes.

Author Contributions: Conceptualization, R.K. and E.R.; methodology, M.C.; formal analysis, investigation, writing (including original draft preparation, review and editing), R.K., M.C., E.R., and N.B.; visualization, R.K.; supervision, N.B.; project administration, R.K.; funding acquisition, R.K. and N.B.

Funding: This research was funded by the Swiss Federal Office for the Environment and by the Universities of Zurich and Lausanne.

Acknowledgments: The authors thank all the different stakeholders for their time and engagement during interviews and/or meetings. They also thank the Swiss Federal Office for the Environment for its funding and especially Thomas Kuske for his continuous support. Many thanks to Jennifer Bartmess for her valuable feedback during proof-reading and to the anonymous reviewers for their useful comments on a previous and the current version of this article that allowed improving the manuscript's quality.

Conflicts of Interest: The authors declare no conflict of interest. The funders shared their views on the design of the study, but they had no influence on the collection, analyses, interpretation of data, writing, or publication.

References

1. Crouzet, F.M. *Les Paysages Culturels Européens: Héritages et Devenir*; Presses de l'Université de Paris-Sorbonne: Paris, France, 1990.
2. Meeus, J.H.A. Pan-European landscapes. *Landsc. Urban Plan.* **1995**, *31*, 57–79. [CrossRef]
3. Reichler, C. *La Découverte des Alpes et la Question du Paysage*; Georg: Geneva, Switzerland, 2002.
4. Ormaux, S. Le paysage, entre l'idéel et le matériel. In *La Polyphonie du Paysage*; Droz, Y., Miéville-Ott, V., Eds.; Presses Polytechniques et Universitaires Romandes: Lausanne, Switzerland, 2005; pp. 71–99.
5. Backhaus, N.; Reichler, C.; Stremlow, M. Conceptualizing landscape: An evidence-based model with political implications. *Mt. Res. Dev.* **2008**, *28*, 132–139. [CrossRef]
6. Goudie, A.S. *The Human Impact on the Natural Environment: Past, Present, and Future*, 7th ed.; Wiley-Blackwell: London, UK, 2013.
7. O'Neill, J.; Walsh, M. Landscape conflicts: Preferences, identities and rights. *Landsc. Ecol.* **2000**, *15*, 281–289. [CrossRef]
8. Zaleskiene, E.; Gražulevičiūte-Vileniske, I. Guidelines for landscape management in the areas of rural-urban interface: Continuity and innovation. *Archit. Urban Plan.* **2014**, *9*, 21–26. [CrossRef]
9. European Landscape Convention and Reference Documents. Available online: https://www.coe.int/en/web/landscape/about-the-convention (accessed on 25 April 2019).

10. Bundesinventar der Landschaften und Naturdenkmäler von Nationaler Bedeutung (BLN) [Federal Inventory of Landscapes and Natural Monuments]. Available online: https://www.bafu.admin.ch/bln (accessed on 25 April 2019).
11. Steiger, U. *Den Landschaftswandel Gestalten. Überblick über Landschaftspolitische Instrumente*; Bundesamt für Umwelt BAFU: Berne, Switzerland, 2016.
12. Parlamentarische Verwaltungskontrollstelle. *Evaluation des Bundesinventars der Landschaften und Naturdenkmäler von Nationaler Bedeutung (BLN)*; Bericht der Parlamentarischen Verwaltungskontrollstelle Zuhanden der Geschäftsprüfungskommission des Nationalrates: Berne, Switzerland, 2003.
13. Verordnung über das Bundesinventar der Landschaften und Naturdenkmäler vom 29. März 2017 (Stand am 1. Juni 2017). Available online: https://www.admin.ch/opc/de/classified-compilation/20162103/index.html (accessed on 25 April 2019).
14. Termorshuizen, J.W.; Opdam, P. Landscape services as a bridge between landscape ecology and sustainable development. *Landsc. Ecol.* **2009**, *24*, 1037–1052. [CrossRef]
15. Fagerholm, N.; Käyhkö, N.; Ndumbaro, F.; Khamis, M. Community stakeholders' knowledge in landscape assessments—Mapping indicators for landscape services. *Ecol. Ind.* **2012**, *18*, 421–433. [CrossRef]
16. Keller, R.; Backhaus, N. Integrating Landscape Services into policy and practice—A case study from Switzerland. *Landsc. Res.* **2019**. [CrossRef]
17. Reid, W.V.; Mooney, H.A.; Cropper, A.; Capistrano, D.; Carpenter, S.R.; Chopra, K.; Dasgupta, P.; Dietz, T.; Duraiappah, A.K.; Hassan, R.; et al. *Ecosystems and Human Well-Being: Synthesis*; Millennium Ecosystem Assessment: Washington, DC, USA, 2005.
18. Díaz, S.; Pascual, U.; Stenseke, M.; Martín-López, B.; Watson, R.T.; Molnár, Z.; Hill, R.; Chan, K.M.A.; Baste, I.A.; Brauman, K.A.; et al. Assessing nature's contributions to people. *Science* **2018**, *359*, 270–272. [CrossRef] [PubMed]
19. Braat, L.C. Five reasons why the Science publication, Assessing nature's contributions to people (Diaz et al. 2018) would not have been accepted in Ecosystem Services. *Ecosyst. Serv.* **2018**, *30*, A1–A2. [CrossRef]
20. Peterson, G.D.; Harmáčková, Z.V.; Meacham, M.; Queiroz, C.; Jiménez-Aceituno, A.; Kuiper, J.J.; Malmborg, K.; Sitas, N.; Bennett, E.M. Welcoming different perspectives in IPBES: "Nature's contributions to people" and "Ecosystem services". *Ecol. Soc.* **2018**, *23*, 39. [CrossRef]
21. Keller, R.; Backhaus, N. *Landschaft Zwischen Wertschätzung und Wertschöpfung—Wie Sich Zentrale Landschaftsleistungen Stärker in Politik und Praxis Verankern Lassen*; University of Zurich: Zurich, Switzerland, 2017. Available online: http://tiny.uzh.ch/Tk (accessed on 25 April 2019).
22. Westerink, J.; Opdam, P.; van Rooij, S.; Steingröver, E. Landscape services as boundary concept in landscape governance: Building social capital in collaboration and adapting the landscape. *Land Use Policy* **2017**, *60*, 408–418. [CrossRef]
23. Opdam, P. Exploring the role of science in sustainable landscape management. An introduction to the special issue. *Sustainability* **2018**, *10*, 331. [CrossRef]
24. World Heritage List. Available online: https://whc.unesco.org/en/list/ (accessed on 25 April 2019).
25. Emerald Network of Areas of Special Conservation Interest. Available online: https://www.coe.int/en/web/bern-convention/emerald-network (accessed on 25 April 2019).
26. Dresco, J.-P.; Chuard, C.; Nicod, C.; Villiger, D. *Lavaux, Vignoble en Terrasses*; Favre: Lausanne, Switzerland, 2007.
27. Bollati, I.; Pellegrini, M.; Reynard, E.; Pelfini, M. Water driven processes and landforms evolution rates in mountain geomorphosites: Examples from Swiss Alps. *Catena* **2017**, *158*, 321–339. [CrossRef]
28. Flick, U. *An Introduction to Qualitative Research*; SAGE Publications: London, UK, 2009.
29. Keller, R.; Clivaz, M.; Backhaus, N.; Reynard, E. *Prestations Paysagères Dans les Paysages D'importance Nationale. Rapport de Recherche et Recommandations à L'intention de la Confédération, des Cantons, Communes, ONG et Acteurs Économiques*; Universities of Zurich: Lausanne, Switzerland, 2019. Available online: https://tinyurl.com/PrestationsPaysageresIFP (accessed on 25 April 2019).
30. Gerber, J.-D.; Knoepfel, P. Towards integrated governance of landscape development. *Mt. Res. Dev.* **2008**, *28*, 110–115. [CrossRef]
31. Gerber, J.-D.; Hess, G. From landscape resources to landscape commons: Focussing on the non-utility values of landscape. *Int. J. Commons* **2017**, *11*, 708–732. [CrossRef]

32. Chan, K.M.A.; Balvanera, P.; Benessaiah, K.; Chapman, M.; Díaz, S.; Gómez-Baggethun, E.; Gould, R.K.; Hannahs, N.; Jax, K.; Klain, S.; et al. Why protect nature? Rethinking values and the environment. *Proc. Natl. Acad. Sci. USA* **2017**, *113*, 1462–1465. [CrossRef] [PubMed]
33. Chan, K.M.A.; Satterfield, T.; Goldstein, J. Rethinking ecosystem services to better address and navigate cultural values. *Ecol. Econ.* **2012**, *74*, 8–18. [CrossRef]